

From glowbugs@devp214.theporch.com Tue Feb 4 12:38:39 1997  
Return-Path: <glowbugs@devp214.theporch.com>  
Received: from devp214.theporch.com (devp214.theporch.com [192.150.244.22])  
by uro.theporch.com (8.8.5/AUX-3.1.1)  
with ESMTP id MAA07448 for <shimshon@theporch.com>;  
Tue, 4 Feb 1997 12:38:37 -0600 (CST)  
From: glowbugs@devp214.theporch.com  
Received: from devp214.theporch.com (localhost [127.0.0.1])  
by devp214.theporch.com (8.8.4/SCO-5.0.2) with SMTP  
id SAA08460; Tue, 4 Feb 1997 18:36:06 GMT  
Date: Tue, 4 Feb 1997 18:36:06 GMT  
Message-Id: <199702041836.SAA08460@devp214.theporch.com>  
Errors-To: ws4s@infoave.net  
Reply-To: glowbugs@devp214.theporch.com  
Originator: glowbugs@devp214.theporch.com  
Sender: glowbugs@devp214.theporch.com  
Precedence: bulk  
To: Multiple recipients of list <glowbugs@devp214.theporch.com>  
Subject: GLOWBUGS digest 436  
X-Listprocessor-Version: 6.0 -- ListProcessor by Anastasios Kotsikonas  
X-Comment: Please send list server requests to listproc@theporch.com  
Status: 0

#### GLOWBUGS Digest 436

Topics covered in this issue include:

- 1) Re: Buzzy regen unbuzzed  
by toyboat@freenet.edmonton.ab.ca
- 2) TLC for the RAL  
by larrys@fmis02.nsc.com (Larry Szendrei, NE1S)
- 3) Re: Crystals without holders?  
by Roy Morgan <morgan@speckle.ncsl.nist.gov>
- 4) Crystals with and without holders  
by Bry <bry@mnsinc.com>
- 5) Re: TLC for the RAL  
by rdkeys@csemail.cropsci.ncsu.edu
- 6) Re: TLC for the RAL  
by wmcshan@REX.RE.uokhsc.edu (Mike McShan)
- 7) B&W miniductors  
by wmcshan@REX.RE.uokhsc.edu (Mike McShan)

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Date: Mon, 3 Feb 1997 12:25:12 -0700 (MST)  
From: toyboat@freenet.edmonton.ab.ca  
To: Art Winterbauer <art@comet.ucar.edu>  
Cc: Multiple recipients of list <glowbugs@devp214.theporch.com>

Subject: Re: Buzzy regen unbuzzed

Message-ID: <Pine.A41.3.95.970203113719.121356A-100000@fn2.freenet.edmonton.ab.ca>

On Mon, 3 Feb 1997, Art Winterbauer wrote:

>  
> No dimmers in the house. But I really suspect the power supply. It's  
> a kit from AES and uses a thermistor with a couple of transistors to  
> detect excessive current draw and restrict current output (I think  
> that's how it works...need to dig out the circuit description).  
> Anyhow, as I tune above 4.5/5 Mhz, the noise gets louder so that, by  
> the time I reach 7 Mhz (with another coil set), I can get it to regen  
> but the noise is so high that what few signals come through are buzzy  
> again (probably via mixing with the noise). Those transistors and the  
> diodes used for voltage dropping are probably generating a good bit of  
> noise.  
>  
> The kit is meant to go along with their regen kits, mostly for BC. I  
> wonder if I put some chokes on that output I can block some of the  
> noise coming off those transistors and diodes.

Hello,

I know that you want to get the battery eliminator working well, but I wonder if it would not be worthwhile to power your receiver with a small battery pack of 9 volt transistor batteries to start out with. (Not that I want to distract attention away from your supply problem)

This would give you a pure source of DC to compare with your AC mains filtered and regulated supply. That way you could switch back and forth to compare, and really know if you found the bug in the supply.

As I recall, you were building that basic Globetrotter regen, using #30 tubes. That project suggested using such batteries, disguised in a small metal box with binding posts and labelled with a photocopied replica of a "B" battery wrapper.

Your #30's should only draw less than 10 mA. each from a 54 volt pack, so should work well from the smaller 9 Volt batteries.

As an experiment, I loaded a single premium brand alkaline 9 Volt battery with a small resistor to draw about 50 mA., and then monitored the battery voltage to see if it would drop significantly. Surprisingly, it dropped only about .1 of a volt, and didn't drop any more over about 30 seconds or so.

For long use they probably wouldn't last a great while. However, for

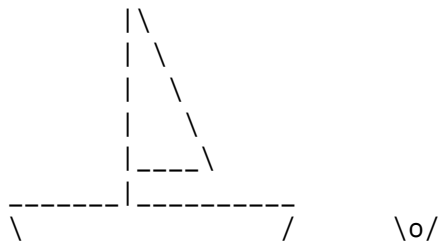
15 mA. to 20 mA. load, I think that they would last long enough for satisfactory portable and experimental glowbug use. The average pocket transistor radio must have drawn at least that much from its single 9 volt battery.

They should be alkaline, though. My experience lately with ordinary old-fashioned sal-ammoniac batteries is negative. They die on the shelf. They seem like false economy.

Discount stores sell premium batteries sometimes for half the regular price, so a 54 Volt pack (6 X 9V) should not be too much. Asian-import alkaline batteries could work quite well and be cheaper yet.

That's my view anyway. Does anyone ot there have any information on cheap "B" battery schemes?

Best Regards and Luck with your AES supply,  
Shane Wilcox



~~~~~  
Shane <toyboat@freenet.edmonton.ab.ca>  
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Date: Mon, 3 Feb 1997 12:42:03 -0500  
From: larrys@fmis02.nsc.com (Larry Szendrei, NE1S)  
To: rdkeys@csemail.cropsci.ncsu.edu, glowbugs@theporch.com  
Subject: TLC for the RAL

Message-ID: <97020312420314@fmis02.nsc.com>

Hi BA Bob...

Having been unimpressed with the sensitivity of my RAL lately\*, and hearing you consistently praise this BA in this area, I set out this weekend to determine if my set had a problem - and I found 2 problems! First, an ohmeter check from the antenna connection to ground showed continuity on the 3 lowest freq. bands, but not on the six higher freq. bands. This told me two things - (1) the internal link was connected to short out the series cap in the antenna circuit, and (2) bands 4-9 had a problem!

Upon pulling the beastie out of it's cage and doing some circuit tracing I found (1) that the primary of the antenna transformer for bands 4-6 was open, and (2) that the bus wire from that beautiful bandswitch to the primary of the antenna coil for bands 7-9 had come unsoldered from the bandswitch. To make a long story short, I corrected both problems, replaced the broad/sharp toggle switch (which was dirty/flaky/and otherwise unreliable) while I was in there, and now I can hear again!!!

I guess I should publicly apologize for not hearing any listmember who may have tried to answer my CQ's on 3.5795 Mc/s, but were not answered because I couldn't hear them!

Question: what is the best way to feed a low-impedance coax antenna system to the RAL?

BTW, in addition to the 160M pp801 TNT I QSO'd you with ~1 year ago, I am now using a breadboard tritet on 80M (GB/BA freq and other freqs) and 40M (~7.046). I can use (& have used) either a 1625 for high power (up to 10W), or type 59 for QRP. I've worked some of the GB/BA gang with it.

\*Although strong signals were coming thru OK, I was hearing weaker stations on my R390/URR and NC100XA that weren't making a peep in the RAL. This didn't sound like the radio BA Bob describes...

73,  
Larry  
ARS NE1S  
larrys@spf.nsc.com

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Date: Mon, 03 Feb 1997 15:19:10 -0500  
From: Roy Morgan <morgan@speckle.ncsl.nist.gov>  
To: glowbugs@theporch.com  
Subject: Re: Crystals without holders?

Message-ID: <3.0.32.19970203151910.006cad8c@speckle.ncsl.nist.gov>

At 10:53 PM 2/1/97 GMT, you wrote:

>

>So...why do we necessarily need to buy the holders? Could a vendor like  
>Phoenix just grind the crystal itself, ship it to us, and let us drop it  
>into an available FT-243 case?

Great idea -

watch out that there were different sized crystal blanks in FT-243 holders  
- at least two different sizes, and maybe more.

-- Roy Morgan/Building 820, Room 562/Gaithersburg MD 20899  
(National Institute of Standards and Technology, formerly NBS)  
301-975-3254 Fax: 301-948-6213 morgan@speckle.ncsl.nist.gov --

-- Roy Morgan/Building 820, Room 562/Gaithersburg MD 20899  
(National Institute of Standards and Technology, formerly NBS)  
301-975-3254 Fax: 301-948-6213 morgan@speckle.ncsl.nist.gov --

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Date: Tue, 04 Feb 1997 05:11:35 -0500  
From: Bry <bry@mnsinc.com>  
To: boatanchors@theporch.com  
Subject: Crystals with and without holders  
Message-ID: <32F70B56.45C6@mnsinc.com>

For a complete list of places that sell crystals, see the file XTALS.TXT  
or just click on the XTALS button in the HAM RADIO RESOURCES section  
at the web address listed below. ENJOY!

From: berg stephen erik <z931086@corn.cso.niu.edu>  
Subject: Re: Crystals without holders?

I recently ordered some crystals for some older Swan and Hallicrafters  
gear from International Crystal. They came in a couple of weeks, and  
the  
one I tried worked fine. I do not have their address and phone number  
here in the lab, but they still are happy to have the business, and have  
a database for older radios to match up the needed parameters. I do not  
know if they have ft-243 holders.

73,

Steve WA9JML

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		DXCC - WAS - RCC	
	Brian Carling	Amateur Radio Station AF4K	
	18016 Fertile Meadow Ct.	YAESU FT-840	
	Gaithersburg, MD 20877	G5RV Dipole up 30 feet	
	*** Now using: Homebrew QRP 6L6 tube transmittter		
	E-mail ----->	bry@mnsinc.com	
	Web site ----->	<a href="http://www.mnsinc.com/bry/">http://www.mnsinc.com/bry/</a>	

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Date: Tue, 4 Feb 1997 11:57:52 -0500 (EST)  
From: rdkeys@csemail.cropsci.ncsu.edu  
To: larrys@fmis02.nsc.com (Larry Szendrei, NE1S)  
Cc: rdkeys@csemail.cropsci.ncsu.edu (), glowbugs@theporch.com  
Subject: Re: TLC for the RAL  
Message-ID: <9702041657.AA141942@csemail.cropsci.ncsu.edu>

>  
> Hi BA Bob...  
>  
> Having been unimpressed with the sensitivity of my RAL lately\*, and hearing  
> you consistently praise this BA in this area, I set out this weekend to  
> determine if my set had a problem - and I found 2 problems! First, an ohmeter  
> check from the antenna connection to ground showed continuity on the 3 lowest  
> freq. bands, but not on the six higher freq. bands. This told me two things -  
> (1) the internal link was connected to short out the series cap in the  
> antenna circuit, and (2) bands 4-9 had a problem!

The link is normally closed unless you are using it on a common antenna.  
I prefer to have the link open, on mine, which makes it work better, in  
my hands, on coax fed antennas. I do run the rak and ral together.

> Upon pulling the beastie out of it's cage and doing some circuit tracing I  
> found (1) that the primary of the antenna transformer for bands 4-6 was open,  
> and (2) that the bus wire from that beautiful bandswitch to the primary of  
> the antenna coil for bands 7-9 had come unsoldered from the bandswitch. To  
> make a long story short, I corrected both problems, replaced the broad/sharp  
> toggle switch (which was dirty/flaky/and otherwise unreliable) while I was in  
> there, and now I can hear again!!!

Excellent! I had to replace several of those toggle switches. They must have been used heavily or were substandard from the contractor.

> I guess I should publicly apologize for not hearing any listmember who may  
> have tried to answer my CQ's on 3.5795 Mc/s, but were not answered because I  
> couldn't hear them!

I am having similar problems on the RBC receiver that I was going to use with the AN/SRT-14. I may have to check those bandswitch joints (only the lowest band works anymore). Same sort of RCA floating bandswitches.

> Question: what is the best way to feed a low-impedance coax antenna system to  
> the RAL?

I feed mine from an end fed antenna that comes into a big antenna changeover relay, with about 3 feet of coax. I use the link open, usually, running both the ral and the rak together.

You need to do the alignment with the coax installed and the normal antenna that you expect to use. The navy prescribed a certain canned antenna setup, but I just do the alignment with the normal antenna and coax feed installed. That way it usually will peak better. Also, I do the alignment with it set up for the ham bands. It holds pretty much throughout, though.

> BTW, in addition to the 160M pp801 TNT I QSO'd you with ~1 year ago, I am now  
> using a breadboard tritet on 80M (GB/BA freq and other freqs) and 40M  
> (~7.046).  
> I can use (& have used) either a 1625 for high power (up to 10W), or type 59  
> for QRP. I've worked some of the GB/BA gang with it.

Excellent! Sounds like a winner.

> \*Although strong signals were coming thru OK, I was hearing weaker stations on  
> my R390/URR and NC100XA that weren't making a peep in the RAL. This didn't  
> sound like the radio BA Bob describes...

The RAL should be quite good on anything that can be heard on HF above the noise. It falls off a little above about 10 mhz. On 600M, 160M, 80M, and 40M, it should compare very favorably to NC100XA and be close to the R390. If it does not, something is still off somewhere.

There is one mod that might help the sensitivity matter. I don't remember right off whether or not I did this on the ral I use mostly, but I did it on one of mine. There is a pot for rf gain control in the first rf stage. You can jumper that in such a way to run the first stage wide open. That will increase the sensitivity if you run lower than normal plate voltages. The ral will run quite well that way with 72 plate volts only (jumper the

detector and the audio plate voltages together at 72-90 volts for emergency use). The downside is that it will overload on very strong signals that way. If you want to push the limits, you might try that.

Check the resistors and capacitors in the detector. I had to replace some of mine. Also, I had to do a couple of the bypasses in the audio section.

> 73,  
> Larry  
> ARS NE1S  
> larrys@spf.nsc.com

73/ZUT DE NA4G/Bob UP

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Date: Tue, 4 Feb 1997 10:40:33 -0600  
From: wmcshan@REX.RE.uokhsc.edu (Mike McShan)  
To: glowbugs@theporch.com  
Subject: Re: TLC for the RAL  
Message-ID: <v01540b01af1d15a2df6c@[157.142.56.167]>

>>  
>> Hi BA Bob...  
>>  
>> Having been unimpressed with the sensitivity of my RAL lately\*, and hearing  
>> you consistently praise this BA in this area, I set out this weekend to

(snip)

>  
>73/ZUT DE NA4G/Bob UP

Hi Bob et al.,

I've followed the discussion of the RAL with interest - sounds like a fun radio to play around with...Not sure that I want to trade my Drake 2B, 'though.

I don't think that I've ever seen one of these things at swapmeets, etc. How available are RALs and how much should you expect to pay for one?

Thanks and 72/3,  
Mike N5JKY  
Edmond, OK



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Date: Tue, 4 Feb 1997 10:44:00 -0600  
From: wmcshan@REX.RE.uokhsc.edu (Mike McShan)  
To: glowbugs@theporch.com  
Subject: B&W miniductors  
Message-ID: <v01540b02af1d171c384a@[157.142.56.167]>

Please don't shoot me if this is the third time this has appeared...I received no mail from Glowbugs yesterday including this request.

Does anyone know of a source for B&W miniductors? I've got a couple of projects that need them (at least, to be exact reproductions).

Mike N5JKY  
Edmond, OK

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End of GLOWBUGS Digest 436  
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